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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
10/067,818	02/08/2002	Jin-Woo Park	1514.1007	9551

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EXAMINER
COLON, GERMAN

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/067,818	PARK ET AL.	
	Examiner	Art Unit	
	German Colón	2879	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *10-18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,19 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in Paper No. 6 is acknowledged. The traversal is on the grounds that (1) a double patenting issue could arise in case of filing a divisional application; (2) there was no reference cited to show the necessity for requiring a restriction; and (3) the evaluation of both sets of claims would not provide an undue burden upon the Examiner.

This is not found persuasive because (1) a patent issuing on an application with respect to which a requirement for restriction has been made, or on an application filed as a result of such a requirement, shall not be used as a reference either in the Patent and Trademark Office or in the courts against a divisional application or against the original application or any patent issued on either of them, if the divisional application is filed before the issuance of the patent on the other application (see 35 U.S.C. 121); (2) the Examiner needs not to cite documents to support the restriction requirement; and (3) even if the Applicant does not considered the examination a burden, the election-restriction is based on the two different inventions, namely, the apparatus and the process for manufacturing. An examination of the apparatus does not mean that the references used to reject it will automatically be used to reject the manufacturing process since both inventions have different features or limitations. Thus, the serious burden on the Examiner of having to search all the features or limitations directed to different inventions and to reject each invention using different references is eliminated by the proper election of invention requirement. Moreover, when searching only the elected invention, there will not be a need to

search for features not stated in the elected invention, thus resulting in a reduction of the workload and in a simplification of the prosecution of the application.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakaguchi et al. (US 5,990,615).

Regarding claim 1, Sakaguchi discloses an organic electroluminescent (EL) device comprising: a substrate **1**; an organic EL element formed on said substrate wherein said organic element comprises a lower electrode **2**, an organic EL layer **4** and an upper electrode **7** that are sequentially stacked on said substrate; a flat panel **9** which encapsulates said organic EL element and is attached to said substrate; at least one through hole **14** formed in said flat panel; and a through hole shutting cap **15** which shuts said through hole.

Regarding claim 19, Sakaguchi discloses the EL device comprising an adhesive which attaches said flat panel to said substrate (see Col. 4, lines 17-18).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 5-9, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. (US 5,239,228) in view of Strite (US 6,023,073).

Regarding claim 1, Taniguchi discloses an EL device comprising: a substrate **11**, an EL element formed on said substrate wherein said EL element comprises a lower electrode **12**, an EL layer **14** and an upper electrode **16** that are sequentially stacked on said substrate; a flat panel **51** which encapsulates said EL element and is attached to said substrate; at least one through hole **54** formed in said flat panel; and a through hole shutting cap (see Fig. 10) which shuts said through hole. Taniguchi fails to disclose the EL element being organic.

However, in the same field of endeavor, Strite discloses an EL device comprising an organic EL element. Strite teaches that organic EL elements can potentially replace conventional inorganic EL elements due to an economical advantage since they can be deposited on large glass substrate or a wide range of other inexpensive transparent, semitransparent or even opaque substrate al low temperature, rather than on crystalline substrate of limited area at high temperature as is the case of inorganic EL elements. Further, the substrates may even be flexible enabling new applications such as flexible OLED's (see Col. 1, lines 13-19, and Col. 3, lines 4-13). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an organic EL element disclosed by Strite in the EL device of Taniguchi in

order to reduce the cost of the device, since organic EL elements can be deposited on large glass substrate or a wide range of other inexpensive transparent, semitransparent or even opaque substrate al low temperature, rather than on crystalline substrate of limited area at high temperature as is the case of inorganic EL elements. Further, the substrates may even be flexible enabling new applications such as flexible OLED's.

Referring to claim 5, Taniguchi-Strite discloses a through hole in the flat panel and a shutting cap for said through hole. Regarding the recitation of "said through hole controls a pressure so as to prevent separation of a portion of said flat panel from said substrate", it has not been given patentable weight because is considered an intended used recitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987).

Regarding claim 6, Taniguchi-Strite discloses a moisture/water absorbing agent **55** arranged at a location inside a space formed by said substrate and said flat panel so as to not shield light emitted from said organic EL element, wherein said moisture/water absorbing agent removes moisture/water from the space (see Taniguchi, Col. 7, line 38).

Referring to claim 7, Taniguchi-Strite discloses the flat panel including a moisture absorbing agent reception groove **53** which receives said moisture absorbing agent.

Regarding claim 8, Taniguchi-Strite discloses the claimed invention except for the limitation of "the location of the moisture absorbing agent being a periphery region of said substrate". It has been held that rearranging of parts of an invention involves only routine skills in the art. *In re Japikse*, 86 USPQ 70. Thus, it would have been obvious to one having ordinary

skills in the art the time the invention was made to "locate the moisture absorbing agent being a periphery region of said substrate", since rearrangement of parts of an invention is considered within the skills of the art.

Regarding claim 9, Taniguchi-Strite discloses the location of the moisture absorbing agent is a periphery region of said flat panel so as to not shield the light emitted form the EL element (see Fig. 10).

Regarding claim 19, Taniguchi-Strite discloses an adhesive attaching said flat panel to said substrate (see Col. 7, lines 17-18).

Regarding claim 20, Taniguchi-Strite discloses the claimed EL device comprising an adhesive, a through hole and a shutting cap. Claim 20 is rejected over the reasons stated in the rejection of claim 5.

6. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKenna et al. (US 4,810,931) in view of Strite (US 6,023,073).

Regarding claim 1, McKenna discloses an EL device comprising: a substrate **30**, an EL element formed on said substrate wherein said EL element comprises a lower electrode, an EL layer and an upper electrode that are sequentially stacked on said substrate (see Fig. 1 in view of Fig. 4); a flat panel **22** which encapsulates said EL element and is attached to said substrate; at least one through hole (see Fig. 4) formed in said flat panel; and a through hole shutting cap **26** which shuts said through hole. McKenna is silent in reference to the EL element being organic.

However, in the same field of endeavor, Strite discloses an EL device comprising an organic EL element. Strite teaches that organic EL elements can potentially replace conventional

inorganic EL elements due to an economical advantage since they can be deposited on large glass substrate or a wide range of other inexpensive transparent, semitransparent or even opaque substrate al low temperature, rather than on crystalline substrate of limited area at high temperature as is the case of inorganic EL elements. Further, the substrates may even be flexible enabling new applications such as flexible OLED's (see Col. 1, lines 13-19, and Col. 3, lines 4-13). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an organic EL element disclosed by Strite in the EL device of McKenna in order to reduce the cost of the device, since organic EL elements can be deposited on large glass substrate or a wide range of other inexpensive transparent, semitransparent or even opaque substrate al low temperature, rather than on crystalline substrate of limited area at high temperature as is the case of inorganic EL elements. Further, the substrates may even be flexible enabling new applications such as flexible OLED's.

Regarding claim 3, McKenna discloses the hole shutting cap comprising a welding material (see Col. 5, line 54).

Referring to claim 4, McKenna discloses the welding material including lead (Pb) (see Col. 5, line 63).

7. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inohara et al. (US 4,357,557) in view of Strite (US 6,023,073).

Regarding claim 1, Inohara discloses an EL device comprising: a substrate **1**, an EL element formed on said substrate wherein said EL element comprises a lower electrode **2**, an EL layer **4** and an upper electrode **6** that are sequentially stacked on said substrate; a flat panel **11**

which encapsulates said EL element and is attached to said substrate; at least one through hole **14** formed in said flat panel; and a through hole shutting cap (see Figs. 1 and 6) which shuts said through hole. Inohara fails to disclose the EL element being organic.

However, in the same field of endeavor, Strite discloses an EL device comprising an organic EL element. Strite teaches that organic EL elements can potentially replace conventional inorganic EL elements due to an economical advantage since they can be deposited on large glass substrate or a wide range of other inexpensive transparent, semitransparent or even opaque substrate al low temperature, rather than on crystalline substrate of limited area at high temperature as is the case of inorganic EL elements. Further, the substrates may even be flexible enabling new applications such as flexible OLED's (see Col. 1, lines 13-19, and Col. 3, lines 4-13). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an organic EL element disclosed by Strite in the EL device of Inohara in order to reduce the cost of the device, since organic EL elements can be deposited on large glass substrate or a wide range of other inexpensive transparent, semitransparent or even opaque substrate al low temperature, rather than on crystalline substrate of limited area at high temperature as is the case of inorganic EL elements. Further, the substrates may even be flexible enabling new applications such as flexible OLED's.

Regarding claim 2, Inohara discloses the shutting cap comprising a curable agent (see Col. 4, lines 23-24).

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Morimoto et al., in U.S. Patent No. 4,770,310, discloses a casing for display device where a hole and a hole shutting cap are provided in the substrate.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Colón whose telephone number is 703-305-5987. The examiner can normally be reached on Monday thru Friday, from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JC
gc
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